eurofins | Lancaster Laboratories Environmental

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Analysis Report

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

EA Engineering
405 State Highway 121 Bypass
Building C, Suite 100
Lewisville TX 75067-8192

Report Date: May 24, 2017

Project: Wilcox Oil Company Superfund Site

Submittal Date: 04/26/2017
Group Number: 1793845
SDG: WLC08
PO Number: 15838
State of Sample Origin: OK

Client Sample Description	Lancaster Labs (LL) #
WPA-WC-01 Soil	8960235
WPA-WC-01 Soil	8960236
WPA-WC-01 Soil	8960237

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our current scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ . To request copies of prior scopes of accreditation, contact your project manager.

Electronic Copy To EA Engineering Attn: Pamela Moss

Respectfully Submitted,

Angela M. Miller
Specialist

(717) 556-7260

9956891

Sample Description: WPA-WC-01 Soil

Project Name: Wilcox Oil Company Superfund Site

LL Sample # SW 8960235
LL Group # 1793845
Account # 30056

Collected: 04/25/2017 16:30 by JS

Submitted: 04/26/2017 09:40
Reported: 05/24/2017 21:09

EA Engineering
405 State Highway 121 Bypass
Building C, Suite 100
Lewisville TX 75067-8192

LC081 SDG#: WLC08-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Pesticides/PCBs	**SW-846 8082A Feb 2007 Rev 1**		**ug/kg**	**ug/kg**	**ug/kg**	
10885	PCB-1016	12674-11-2	N.D.	3.9	18	1
10885	PCB-1221	11104-28-2	N.D.	5.0	18	1
10885	PCB-1232	11141-16-5	N.D.	8.7	18	1
10885	PCB-1242	53469-21-9	N.D.	3.6	18	1
10885	PCB-1248	12672-29-6	N.D.	3.6	18	1
10885	PCB-1254	11097-69-1	N.D.	3.6	18	1
10885	PCB-1260	11096-82-5	N.D.	5.3	18	1
10885	PCB-1262	37324-23-5	N.D.	3.6	18	1
10885	PCB-1268	11100-14-4	N.D.	3.6	18	1
10885	Total PCBs	1336-36-3	N.D.	3.6	18	1
	The response for the surrogate(s) in the continuing calibration verification standard is outside the QC acceptance limits. The following corrective action was taken: The analysis was repeated and the continuing calibration verification standard bracketing the sample on the second trial is also outside the acceptance limits. This effect is attributed to the sample matrix and the data is reported.					
GC Petroleum Hydrocarbons	**TX 1005 Rev 3, 06/01**		**mg/kg**	**mg/kg**	**mg/kg**	
02321	>C12 - C28 Hydrocarbons	n.a.	N.D.	11	21	1
02321	>C28 - C35 Hydrocarbons	n.a.	N.D.	11	21	1
02321	C6 - C12 Hydrocarbons	n.a.	N.D.	11	21	1
02321	Total C6 - C28 Hydrocarbons	n.a.	N.D.	11	21	1
02321	Total C6 - C35 Hydrocarbons	n.a.	N.D.	11	21	1
Wet Chemistry	**SW-846 Chapter 7.3**		**mg/kg**	**mg/kg**	**mg/kg**	
01123	Cyanide (Reactivity)	n.a.	N.D.	19.8	59.3	1
	40 CFR 261.21(a)(2)					
00542	Ignitability	n.a.	See Below	0	0	1
	The sample did not spontaneously ignite when exposed to air or water. The sample did not ignite by friction. The sample vapors did not ignite when exposed to a flame using a closed cup apparatus.					
	SW-846 9045D modified		**Std. Units**	**Std. Units**	**Std. Units**	
00394	pH	n.a.	10.6 J	0.0100	0.0100	1
	The pH was measured in water at 19.5 C.					
	SW-846 Chapter 7					
00496	Corrosivity	n.a.	See Below	0	0	1
	The pH of the sample is 10.57 indicating that the sample is not corrosive. A sample is corrosive if it exhibits a pH equal to or less than 2 or equal to or greater than 12.5.					

*=This limit was used in the evaluation of the final result

Sample Description: WPA-WC-01 Soil

Project Name: Wilcox Oil Company Superfund Site

LL Sample # SW 8960235
LL Group # 1793845
Account # 30056

Collected: 04/25/2017 16:30 by JS

Submitted: 04/26/2017 09:40
Reported: 05/24/2017 21:09

EA Engineering
405 State Highway 121 Bypass
Building C, Suite 100
Lewisville TX 75067-8192

LC081 SDG#: WLC08-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Wet Chemistry	**SW-846 Chapter 7.3**		**mg/kg**	**mg/kg**	**mg/kg**	
01122	Sulfide (Reactivity)	n.a.	N.D.	53.6	160	1
	SW-846 Chapter 7.3		**see below**	**see below**	**see below**	
01121	Reactivity	n.a.	See Below	0	0	1

Reactivity:
This sample was extracted and analyzed by the interim method described in SW-846 Revision 3, December 1996 - Chapter 7.3. The Interim Guidance for Reactive Cyanide and Reactive Sulfide (SW-846 Sections 7.3.3 and 7.3.4 of Chapter 7 - December 1996) identifies a reactive material as generating more than 250 mg/kg of hydrogen cyanide or 500 mg/kg of hydrogen sulfide. This waste is not considered hazardous due to reactivity based on that standard. These results do not reflect total cyanide or total sulfide. On July 14, 2005, EPA published a rule in the Federal Register that removed the Interim Guidance and the method referenced above. At this time there is no specific guidance or a method to be used to evaluate "Reactivity".

Wet Chemistry	**SM 2540 G-1997**		**%**	**%**	**%**	
00111	Moisture	n.a.	9.3	0.50	0.50	1

Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

*=This limit was used in the evaluation of the final result

Sample Description: WPA-WC-01 Soil

Project Name: Wilcox Oil Company Superfund Site

LL Sample # SW 8960235
LL Group # 1793845
Account # 30056

Collected: 04/25/2017 16:30 by JS

Submitted: 04/26/2017 09:40
Reported: 05/24/2017 21:09

EA Engineering
405 State Highway 121 Bypass
Building C, Suite 100
Lewisville TX 75067-8192

LC081 SDG#: WLC08-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor
Dioxins/Furans	**SW-846 8290A Feb 2007 Rev 1**		**ng/kg**	**ng/kg**	**ng/kg**	
12937	2378-TCDD	1746-01-6	0.0472 JBQ	0.0442	1.08	1
12937	12378-PeCDD	40321-76-4	0.913 J	0.0753	5.38	1
12937	123478-HxCDD	39227-28-6	1.09 JB	0.143	5.38	1
12937	123678-HxCDD	57653-85-7	4.42 JB	0.141	5.38	1
12937	123789-HxCDD	19408-74-3	3.47 JB	0.142	5.38	1
12937	1234678-HpCDD	35822-46-9	41.8 B	0.126	5.38	1
12937	OCDD	3268-87-9	64.1 B	0.394	10.8	1
12937	2378-TCDF	51207-31-9	0.0916 JBQ	0.0565	1.08	1
12937	12378-PeCDF	57117-41-6	0.118 JBQ	0.0290	5.38	1
12937	23478-PeCDF	57117-31-4	0.0778 JBQ	0.0273	5.38	1
12937	123478-HxCDF	70648-26-9	0.0606 JBQ	0.0363	5.38	1
12937	123678-HxCDF	57117-44-9	0.141 JBQ	0.0354	5.38	1
12937	123789-HxCDF	72918-21-9	0.105 JBQ	0.0439	5.38	1
12937	234678-HxCDF	60851-34-5	0.128 JBQ	0.0475	5.38	1
12937	1234678-HpCDF	67562-39-4	0.549 JB	0.0412	5.38	1
12937	1234789-HpCDF	55673-89-7	0.107 JBQ	0.0599	5.38	1
12937	OCDF	39001-02-0	0.613 JBQ	0.289	10.8	1
D/F Toxic Equivalents	**SW-846 8290A Feb 2007 Rev 1**		**ng/kg**	**ng/kg**	**ng/kg**	
12937	TEQ WHO 2005 - EDLx0.0	n.a.	2.25			1

Labeled Compounds	%Rec	Windows
13C12-2378-TCDD	57	40 - 135
13C12-12378-PeCDD	68	40 - 135
13C12-123478-HxCDD	65	40 - 135
13C12-123678-HxCDD	63	40 - 135
13C12-123789-HxCDD	64	40 - 135
13C12-1234678-HpCDD	61	40 - 135
13C12-OCDD	50	40 - 135
13C12-2378-TCDF	53	40 - 135
13C12-12378-PeCDF	65	40 - 135
13C12-23478-PeCDF	62	40 - 135
13C12-123478-HxCDF	56	40 - 135
13C12-123678-HxCDF	59	40 - 135
13C12-234678-HxCDF	59	40 - 135
13C12-123789-HxCDF	53	40 - 135
13C12-1234678-HpCDF	62	40 - 135
13C12-1234789-HpCDF	48	40 - 135
13C12-OCDF	40	40 - 135

Dioxins/Furans Data Qualifiers:

B *Detected in Method Blank*
U *Undetected*
J *Estimated concentration between Estimated Detection Limit and Minimum Reporting Level*

EDL = Estimated Detection Limit
*=This limit was used in the evaluation of the final result

Sample Description: WPA-WC-01 Soil

Project Name: Wilcox Oil Company Superfund Site

LL Sample # SW 8960235
LL Group # 1793845
Account # 30056

Collected: 04/25/2017 16:30 by JS

Submitted: 04/26/2017 09:40
Reported: 05/24/2017 21:09

EA Engineering
405 State Highway 121 Bypass
Building C, Suite 100
Lewisville TX 75067-8192

LC081 SDG#: WLC08-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry EDL*	Dry MRL	Dilution Factor

E *Exceeds calibration range*
C *Confirmed quantitation on secondary GC column*
Q *EMPC - Estimated Maximum Possible Concentration*
F *Interference is present*
S *Saturation of detection signal*

EDL = Estimated Detection Limit
*=This limit was used in the evaluation of the final result

Sample Description: WPA-WC-01 Soil

Project Name: Wilcox Oil Company Superfund Site

LL Sample # SW 8960235
LL Group # 1793845
Account # 30056

Collected: 04/25/2017 16:30 by JS

Submitted: 04/26/2017 09:40
Reported: 05/24/2017 21:09

EA Engineering
405 State Highway 121 Bypass
Building C, Suite 100
Lewisville TX 75067-8192

LC081 SDG#: WLC08-01

Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10885	PCBs 8082A/3546	SW-846 8082A Feb 2007 Rev 1	1	171180007A	04/30/2017 22:47	Kirby B Turner	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	171180007A	04/28/2017 17:10	Sally L Appleyard	1
02321	TX 1005 -(Soils)	TX 1005 Rev 3, 06/01	1	171170008A	04/28/2017 20:01	Heather E Williams	1
11230	TX DRO Soils Extraction	TX 1005 Rev 3, 06/01	1	171170008A	04/27/2017 16:00	Ryan J Dowdy	1
12937	Dioxin/Furans w/ WHO 2005	SW-846 8290A Feb 2007 Rev 1	1	17118013	05/19/2017 20:39	Michael A Ziegler	1
11030	Dioxins/Furans in Solids - Sox	SW-846 8290A Feb 2007 Rev 1	1	17118013	05/10/2017 09:00	Deborah M Zimmerman	1
01123	Cyanide (Reactivity)	SW-846 Chapter 7.3	1	17135104201A	05/15/2017 07:24	Dein K Bernot	1
00542	Ignitability	40 CFR 261.21(a)(2)	1	17119054201A	04/29/2017 05:35	Daniel S Smith	1
00394	pH	SW-846 9045D modified	1	17119039401A	04/29/2017 13:00	Luz M Groff	1
00496	Corrosivity	SW-846 Chapter 7	1	17119039401A	04/29/2017 13:00	Luz M Groff	1
01121	Reactivity	SW-846 Chapter 7.3	1	17132112101A	05/12/2017 08:06	Susan E Hibner	1
01122	Sulfide (Reactivity)	SW-846 Chapter 7.3	1	17132112101A	05/12/2017 08:06	Susan E Hibner	1
00111	Moisture	SM 2540 G-1997	1	17118820004B	04/28/2017 20:50	Scott W Freisher	1

EDL = Estimated Detection Limit
*=This limit was used in the evaluation of the final result

Sample Description: WPA-WC-01 Soil
TCLP NVE

LL Sample # TL 8960236
LL Group # 1793845
Account # 30056

Project Name: Wilcox Oil Company Superfund Site

Collected: 04/25/2017 16:30 by JS

Submitted: 04/26/2017 09:40
Reported: 05/24/2017 21:09

EA Engineering
405 State Highway 121 Bypass
Building C, Suite 100
Lewisville TX 75067-8192

LC082 SDG#: WLC08-02

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270D**		**mg/l**	**mg/l**	**mg/l**	
14252	1,4-Dichlorobenzene	106-46-7	N.D.	0.003	0.005	1
14252	2,4-Dinitrotoluene	121-14-2	N.D.	0.005	0.025	1
14252	Hexachlorobenzene	118-74-1	N.D.	0.0005	0.003	1
14252	Hexachlorobutadiene	87-68-3	N.D.	0.003	0.005	1
14252	Hexachloroethane	67-72-1	N.D.	0.005	0.025	1
14252	2-Methylphenol	95-48-7	N.D.	0.003	0.005	1
14252	4-Methylphenol	106-44-5	N.D.	0.003	0.005	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.					
14252	Nitrobenzene	98-95-3	N.D.	0.003	0.005	1
14252	Pentachlorophenol	87-86-5	N.D.	0.005	0.025	1
14252	Pyridine	110-86-1	N.D.	0.010	0.025	1
14252	2,4,5-Trichlorophenol	95-95-4	N.D.	0.003	0.005	1
14252	2,4,6-Trichlorophenol	88-06-2	N.D.	0.003	0.005	1
Metals	**SW-846 6010C**		**mg/l**	**mg/l**	**mg/l**	
07035	Arsenic	7440-38-2	N.D.	0.0097	0.0400	1
07046	Barium	7440-39-3	0.155	0.0011	0.0100	1
07049	Cadmium	7440-43-9	N.D.	0.00049	0.0100	1
07051	Chromium	7440-47-3	0.0089 J	0.0018	0.0300	1
07055	Lead	7439-92-1	2.85	0.0062	0.0300	1
07036	Selenium	7782-49-2	0.0305 J	0.0097	0.0400	1
07066	Silver	7440-22-4	N.D.	0.0019	0.0100	1
	SW-846 7470A		**mg/l**	**mg/l**	**mg/l**	
00259	Mercury	7439-97-6	N.D.	0.000050	0.00020	1

Sample Comments

If the analysis is for determination of Hazardous Waste Characteristics, see Table 1 in EPA Code of Federal Regulations 40 CFR 261.24.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14252	TCLP 8270D MINI	SW-846 8270D	1	17125WAD026	05/08/2017 02:04	Brandon H Smith	1
04731	TCLP Leachate Extraction	SW-846 3510C	1	17125WAD026	05/05/2017 15:30	Christine Gleim	1
07035	Arsenic	SW-846 6010C	2	171281063602	05/10/2017 00:51	Jonathan Allen	1
07046	Barium	SW-846 6010C	2	171281063602	05/10/2017 00:51	Jonathan Allen	1
07049	Cadmium	SW-846 6010C	2	171281063602	05/10/2017 00:51	Jonathan Allen	1
07051	Chromium	SW-846 6010C	1	171281063602	05/10/2017 00:51	Jonathan Allen	1

*=This limit was used in the evaluation of the final result

Sample Description: WPA-WC-01 Soil
TCLP NVE

LL Sample # TL 8960236
LL Group # 1793845
Account # 30056

Project Name: Wilcox Oil Company Superfund Site

Collected: 04/25/2017 16:30 by JS

Submitted: 04/26/2017 09:40
Reported: 05/24/2017 21:09

EA Engineering
405 State Highway 121 Bypass
Building C, Suite 100
Lewisville TX 75067-8192

LC082 SDG#: WLC08-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07055	Lead	SW-846 6010C	2	171281063602	05/10/2017 00:51	Jonathan Allen	1
07036	Selenium	SW-846 6010C	1	171281063602	05/10/2017 00:51	Jonathan Allen	1
07066	Silver	SW-846 6010C	2	171281063602	05/10/2017 00:51	Jonathan Allen	1
00259	Mercury	SW-846 7470A	1	171220571301	05/03/2017 13:35	Damary Valentin	1
10636	ICP-WW/TL, 3010A (tot) - U4	SW-846 3010A	1	171281063602	05/08/2017 22:00	Annamaria Kuhns	1
05713	WW SW846 Hg Digest	SW-846 7470A	1	171220571301	05/03/2017 09:05	Lisa J Cooke	1
00947	TCLP Non-volatile Extraction	SW-846 1311	1	17121-2807-947 A	05/01/2017 21:40	Nicholas W Shroyer	n.a.

*=This limit was used in the evaluation of the final result

Sample Description: WPA-WC-01 Soil
TCLP ZHE

LL Sample # TL 8960237
LL Group # 1793845
Account # 30056

Project Name: Wilcox Oil Company Superfund Site

Collected: 04/25/2017 16:30 by JS

Submitted: 04/26/2017 09:40
Reported: 05/24/2017 21:09

EA Engineering
405 State Highway 121 Bypass
Building C, Suite 100
Lewisville TX 75067-8192

LC083 SDG#: WLC08-03

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		mg/l	mg/l	mg/l	
11997	Benzene	71-43-2	N.D.	0.010	0.020	20
11997	2-Butanone	78-93-3	N.D.	0.060	0.20	20
11997	Carbon Tetrachloride	56-23-5	N.D.	0.010	0.020	20
11997	Chlorobenzene	108-90-7	N.D.	0.010	0.020	20
11997	Chloroform	67-66-3	N.D.	0.010	0.020	20
11997	1,2-Dichloroethane	107-06-2	N.D.	0.010	0.020	20
11997	1,1-Dichloroethene	75-35-4	N.D.	0.010	0.020	20
11997	Tetrachloroethene	127-18-4	N.D.	0.010	0.020	20
11997	Trichloroethene	79-01-6	N.D.	0.010	0.020	20
11997	Vinyl Chloride	75-01-4	N.D.	0.010	0.020	20

Sample Comments

If the analysis is for determination of Hazardous Waste Characteristics, see Table 1 in EPA Code of Federal Regulations 40 CFR 261.24.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C	SW-846 8260C	1	L171252AA	05/05/2017 18:03	Brett W Kenyon	20
01163	GC/MS VOA Water Prep	SW-846 5030B	1	L171252AA	05/05/2017 18:03	Brett W Kenyon	20
00946	TCLP Zero Headspace Extraction	SW-846 1311	1	17118-2807-946	04/28/2017 13:50	Nicholas W Shroyer	n.a.

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: EA Engineering
Reported: 05/24/2017 21:09

Group Number: 1793845

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL**	LOQ
	mg/l	mg/l	mg/l
Batch number: L171252AA	Sample number(s): 8960237		
Benzene	N.D.	0.0005	0.001
2-Butanone	N.D.	0.003	0.010
Carbon Tetrachloride	N.D.	0.0005	0.001
Chlorobenzene	N.D.	0.0005	0.001
Chloroform	N.D.	0.0005	0.001
1,2-Dichloroethane	N.D.	0.0005	0.001
1,1-Dichloroethene	N.D.	0.0005	0.001
Tetrachloroethene	N.D.	0.0005	0.001
Trichloroethene	N.D.	0.0005	0.001
Vinyl Chloride	N.D.	0.0005	0.001
Batch number: 17125WAD026	Sample number(s): 8960236		
1,4-Dichlorobenzene	N.D.	0.003	0.005
2,4-Dinitrotoluene	N.D.	0.005	0.025
Hexachlorobenzene	N.D.	0.0005	0.003
Hexachlorobutadiene	N.D.	0.003	0.005
Hexachloroethane	N.D.	0.005	0.025
2-Methylphenol	N.D.	0.003	0.005
4-Methylphenol	N.D.	0.003	0.005
Nitrobenzene	N.D.	0.003	0.005
Pentachlorophenol	N.D.	0.005	0.025
Pyridine	N.D.	0.010	0.025
2,4,5-Trichlorophenol	N.D.	0.003	0.005
2,4,6-Trichlorophenol	N.D.	0.003	0.005
	ug/kg	ug/kg	ug/kg
Batch number: 171180007A	Sample number(s): 8960235		
PCB-1016	N.D.	3.6	17
PCB-1221	N.D.	4.6	17
PCB-1232	N.D.	8.0	17
PCB-1242	N.D.	3.3	17
PCB-1248	N.D.	3.3	17
PCB-1254	N.D.	3.3	17
PCB-1260	N.D.	4.9	17
PCB-1262	N.D.	3.3	17
PCB-1268	N.D.	3.3	17
Total PCBs	N.D.	3.3	17
	mg/kg	mg/kg	mg/kg
Batch number: 171170008A	Sample number(s): 8960235		
>C12 - C28 Hydrocarbons	N.D.	10	20

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: EA Engineering
Reported: 05/24/2017 21:09

Group Number: 1793845

Method Blank (continued)

Analysis Name	Result	MDL**	LOQ
	mg/kg	mg/kg	mg/kg
>C28 - C35 Hydrocarbons	N.D.	10	20
C6 - C12 Hydrocarbons	N.D.	10	20
Total C6 - C28 Hydrocarbons	N.D.	10	20
Total C6 - C35 Hydrocarbons	N.D.	10	20
	mg/l	mg/l	mg/l
Batch number: 171220571301	Sample number(s): 8960236		
Mercury	N.D.	0.000050	0.00020
Batch number: 171281063602	Sample number(s): 8960236		
Arsenic	N.D.	0.0097	0.0400
Barium	N.D.	0.0011	0.0100
Cadmium	N.D.	0.00049	0.0100
Chromium	N.D.	0.0018	0.0300
Lead	N.D.	0.0062	0.0300
Selenium	N.D.	0.0097	0.0400
Silver	N.D.	0.0019	0.0100
	mg/kg	mg/kg	mg/kg
Batch number: 17135104201A	Sample number(s): 8960235		
Cyanide (Reactivity)	N.D.	20.0	60.0
Batch number: 17132112101A	Sample number(s): 8960235		
Sulfide (Reactivity)	N.D.	53.6	160

Analysis Name	Result	EDL**	MRL
	ng/kg	ng/kg	ng/kg
Batch number: 17118013	Sample number(s): 8960235		
2378-TCDD	0.0191 J	0.0163	1.00
12378-PeCDD	N.D.	0.0190	5.00
123478-HxCDD	0.0421 J	0.0110	5.00
123678-HxCDD	0.0446 J	0.0113	5.00
123789-HxCDD	0.0478 J	0.0111	5.00
1234678-HpCDD	0.0675 J	0.0113	5.00
OCDD	0.216 J	0.0219	10.0
2378-TCDF	0.0319 J	0.0128	1.00
12378-PeCDF	0.0741 J	0.0125	5.00
23478-PeCDF	0.0498 J	0.0109	5.00
123478-HxCDF	0.0634 J	0.00750	5.00
123678-HxCDF	0.0478 J	0.00687	5.00
123789-HxCDF	0.0830 J	0.00948	5.00
234678-HxCDF	0.0314 J	0.00711	5.00
1234678-HpCDF	0.0683 J	0.00502	5.00
1234789-HpCDF	0.0513 J	0.00707	5.00
OCDF	0.0907 J	0.0194	10.0
TEQ WHO 2005 - EDLx0.0	0.0141		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: EA Engineering
Reported: 05/24/2017 21:09

Group Number: 1793845

LCS/LCSD

Analysis Name	LCS Spike Added	LCS Conc	LCSD Spike Added	LCSD Conc	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	mg/l	mg/l	mg/l	mg/l					
Batch number: L171252AA	Sample number(s): 8960237								
Benzene	0.0200	0.0187	0.0200	0.0191	93	95	78-120	2	30
2-Butanone	0.150	0.133	0.150	0.136	89	90	53-140	2	30
Carbon Tetrachloride	0.0200	0.0189	0.0200	0.0195	95	97	76-123	3	30
Chlorobenzene	0.0200	0.0188	0.0200	0.0196	94	98	80-120	4	30
Chloroform	0.0200	0.0191	0.0200	0.0194	95	97	80-120	1	30
1,2-Dichloroethane	0.0200	0.0200	0.0200	0.0202	100	101	66-128	1	30
1,1-Dichloroethene	0.0200	0.0206	0.0200	0.0206	103	103	76-124	0	30
Tetrachloroethene	0.0200	0.0189	0.0200	0.0196	94	98	80-129	4	30
Trichloroethene	0.0200	0.0187	0.0200	0.0192	93	96	80-120	3	30
Vinyl Chloride	0.0200	0.0179	0.0200	0.0181	89	90	63-121	1	30
	mg/l	mg/l	mg/l	mg/l					
Batch number: 17125WAD026	Sample number(s): 8960236								
1,4-Dichlorobenzene	0.250	0.172	0.250	0.149	69	59	41-104	14	30
2,4-Dinitrotoluene	0.250	0.233	0.250	0.230	93	92	76-122	2	30
Hexachlorobenzene	0.250	0.212	0.250	0.210	85	84	67-125	1	30
Hexachlorobutadiene	0.250	0.175	0.250	0.129	70	52	28-110	31*	30
Hexachloroethane	0.250	0.163	0.250	0.129	65	51	28-103	24	30
2-Methylphenol	0.250	0.194	0.250	0.195	78	78	50-104	1	30
4-Methylphenol	0.250	0.178	0.250	0.180	71	72	45-101	1	30
Nitrobenzene	0.250	0.220	0.250	0.212	88	85	53-119	4	30
Pentachlorophenol	0.250	0.243	0.250	0.241	97	97	59-134	1	30
Pyridine	0.250	0.120	0.250	0.124	48	50	19-68	4	30
2,4,5-Trichlorophenol	0.250	0.228	0.250	0.230	91	92	69-122	1	30
2,4,6-Trichlorophenol	0.250	0.229	0.250	0.231	91	92	68-125	1	30
	ug/kg	ug/kg	ug/kg	ug/kg					
Batch number: 171180007A	Sample number(s): 8960235								
PCB-1016	168	172.09			102		76-121		
PCB-1260	167	185.06			111		79-130		
	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 171170008A	Sample number(s): 8960235								
>C12 - C28 Hydrocarbons	251	293.39	251	282.16	117	112	75-125	4	20
C6 - C12 Hydrocarbons	250	257.59	250	262.98	103	105	75-125	2	20
Total C6 - C28 Hydrocarbons	501	550.98	501	545.13	110	109	75-125	1	20
	mg/l	mg/l	mg/l	mg/l					
Batch number: 171220571301	Sample number(s): 8960236								
Mercury	0.00100	0.00105			105		80-120		
Batch number: 171281063602	Sample number(s): 8960236								
Arsenic	0.150	0.165			110		80-120		
Barium	2.00	1.97			99		80-120		
Cadmium	0.0500	0.0513			103		80-120		
Chromium	0.200	0.202			101		80-120		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: EA Engineering
Reported: 05/24/2017 21:09

Group Number: 1793845

LCS/LCSD (continued)

Analysis Name	LCS Spike Added	LCS Conc	LCSD Spike Added	LCSD Conc	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	mg/l	mg/l	mg/l	mg/l					
Lead	0.150	0.144			96		80-120		
Selenium	0.150	0.170			113		80-120		
Silver	0.0500	0.0523			105		80-120		
	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 17135104201A	Sample number(s): 8960235								
Cyanide (Reactivity)	1000	1005.78			101		77-113		
Batch number: 17119039401A	Sample number(s): 8960235								
Corrosivity	7.00	6.99			100		89-110		
	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 17132112101A	Sample number(s): 8960235								
Sulfide (Reactivity)	570	452.85			79		68-102		
	Std. Units	Std. Units	Std. Units	Std. Units					
Batch number: 17119039401A	Sample number(s): 8960235								
pH	7.00	6.99			100		95-105		
	%	%	%	%					
Batch number: 17118820004B	Sample number(s): 8960235								
Moisture	89.5	89.4			100		99-101		

Analysis Name	OPR Spike Added	OPR Conc	OPRD Spike Added	OPRD Conc	OPR %REC	OPRD %REC	OPR/OPRD Limits	RPD	RPD Max
	ng/kg	ng/kg	ng/kg	ng/kg					
Batch number: 17118013	Sample number(s): 8960235								
2378-TCDD	20	19.57			98		67-158		
12378-PeCDD	100	102.52			103		70-142		
123478-HxCDD	100	102.09			102		70-164		
123678-HxCDD	100	102.58			103		76-134		
123789-HxCDD	100	102.2			102		64-162		
1234678-HpCDD	100	101.54			102		70-140		
OCDD	200	204.28			102		78-144		
2378-TCDF	20	20.68			103		75-158		
12378-PeCDF	100	100.98			101		80-134		
23478-PeCDF	100	101.24			101		68-160		
123478-HxCDF	100	101.91			102		72-134		
123678-HxCDF	100	102.24			102		84-130		
123789-HxCDF	100	100.61			101		78-130		
234678-HxCDF	100	101.56			102		70-156		
1234678-HpCDF	100	102.97			103		82-122		
1234789-HpCDF	100	101.71			102		78-138		
OCDF	200	201.66			101		63-170		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: EA Engineering
Reported: 05/24/2017 21:09

Group Number: 1793845

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc	MS Spike Added	MS Conc	MSD Spike Added	MSD Conc	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
	mg/l	mg/l	mg/l	mg/l	mg/l					
Batch number: L171252AA	Sample number(s): 8960237 UNSPK: P960231									
Benzene	N.D.	0.400	0.379	0.400	0.371	95	93	78-120	2	30
2-Butanone	N.D.	3.00	2.68	3.00	2.69	89	90	53-140	0	30
Carbon Tetrachloride	N.D.	0.400	0.376	0.400	0.356	94	89	76-123	5	30
Chlorobenzene	N.D.	0.400	0.389	0.400	0.385	97	96	80-120	1	30
Chloroform	N.D.	0.400	0.384	0.400	0.373	96	93	80-120	3	30
1,2-Dichloroethane	N.D.	0.400	0.389	0.400	0.384	97	96	66-128	1	30
1,1-Dichloroethene	N.D.	0.400	0.401	0.400	0.378	100	94	76-124	6	30
Tetrachloroethene	N.D.	0.400	0.396	0.400	0.386	99	96	80-129	3	30
Trichloroethene	N.D.	0.400	0.375	0.400	0.363	94	91	80-120	3	30
Vinyl Chloride	N.D.	0.400	0.352	0.400	0.332	88	83	63-121	6	30
	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg					
Batch number: 171180007A	Sample number(s): 8960235 UNSPK: P957751									
PCB-1016	N.D.	167	128.44	167	132.46	77	79	76-121	3	50
PCB-1260	N.D.	166	136.71	166	144.17	82	87	79-130	5	50
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 171170008A	Sample number(s): 8960235 UNSPK: P960033									
>C12 - C28 Hydrocarbons	N.D.	244	244.21	247	270.12	100	109	75-125	10	20
C6 - C12 Hydrocarbons	N.D.	243	215.96	246	238.43	89	97	75-125	10	20
Total C6 - C28 Hydrocarbons	N.D.	486	460.17	493	508.55	95	103	75-125	10	20
	mg/l	mg/l	mg/l	mg/l	mg/l					
Batch number: 171220571301	Sample number(s): 8960236 UNSPK: P963191									
Mercury	N.D.	0.0200	0.0174	0.0200	0.0171	87	86	80-120	2	20
Batch number: 171281063602	Sample number(s): 8960236 UNSPK: P959663									
Arsenic	N.D.	5.00	5.08	5.00	4.94	102	99	75-125	3	20
Barium	0.267	100	4.22	100	4.23	4*	4*	75-125	0	20
Cadmium	N.D.	1.00	0.925	1.00	0.898	93	90	75-125	3	20
Chromium	0.00225	5.00	4.45	5.00	4.36	89	87	75-125	2	20
Lead	0.0127	5.00	1.57	5.00	1.53	31*	30*	75-125	3	20
Selenium	N.D.	1.00	1.03	1.00	1.00	103	100	75-125	2	20
Silver	N.D.	5.00	2.05	5.00	2.01	41*	40*	75-125	2	20
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 17135104201A	Sample number(s): 8960235 UNSPK: P979339									
Cyanide (Reactivity)	N.D.	1000	N.D.	1000	N.D.	0*	0*	77-113	0	11
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 17132112101A	Sample number(s): 8960235 UNSPK: P979339									

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: EA Engineering
Reported: 05/24/2017 21:09

Group Number: 1793845

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc mg/kg	MS Spike Added mg/kg	MS Conc mg/kg	MSD Spike Added mg/kg	MSD Conc mg/kg	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Sulfide (Reactivity)	N.D.	546	443.36	544	422.95	81	78	68-102	5	24

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc	DUP Conc	DUP RPD	DUP RPD Max
	mg/l	mg/l		
Batch number: 171220571301	Sample number(s): 8960236 BKG: P963191			
Mercury	N.D.	N.D.	0 (1)	20
Batch number: 171281063602	Sample number(s): 8960236 BKG: P959663			
Arsenic	N.D.	N.D.	0 (1)	20
Barium	0.267	0.265	1	20
Cadmium	N.D.	N.D.	0 (1)	20
Chromium	0.00225	0.00191	16 (1)	20
Lead	0.0127	0.0106	18 (1)	20
Selenium	N.D.	N.D.	0 (1)	20
Silver	N.D.	N.D.	0 (1)	20
Batch number: 17119039401A	Sample number(s): 8960235 BKG: 8960235			
Corrosivity	10.57	10.52	0	2
	Std. Units	Std. Units		
Batch number: 17119039401A	Sample number(s): 8960235 BKG: 8960235			
pH	10.57	10.52	0	3
	%	%		
Batch number: 17118820004B	Sample number(s): 8960235 BKG: P962543			
Moisture	10.36	10.86	5	5

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: VOCs- 5ml Water by 8260C
Batch number: L171252AA

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: EA Engineering
Reported: 05/24/2017 21:09

Group Number: 1793845

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: VOCs- 5ml Water by 8260C
Batch number: L171252AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8960237	99	99	100	98
Blank	101	101	99	99
LCS	101	101	99	100
LCSD	100	100	101	101
MS	101	101	101	99
MSD	99	100	102	100
Limits:	80-116	77-113	80-113	78-113

Analysis Name: TCLP 8270D MINI
Batch number: 17125WAD026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol
8960236	73	70	86	30	40	71
Blank	78	72	90	34	46	86
LCS	83	78	85	37	50	86
LCSD	81	77	84	37	50	86
Limits:	29-119	41-112	38-125	10-71	10-84	13-149

Analysis Name: PCBs 8082A/3546
Batch number: 171180007A

	Tetrachloro-m-xylene	Decachlorobiphenyl
8960235	72	56
Blank	102	100
LCS	108	108
MS	82	95
MSD	85	93
Limits:	53-140	45-143

Analysis Name: TX 1005 -(Soils)
Batch number: 171170008A

	Orthoterphenyl	Trifluorotoluene
8960235	87	87
Blank	100	102
LCS	96	106
LCSD	96	107
MS	85	89
MSD	91	101
Limits:	70-130	70-130

Analysis Name: Dioxin/Furans w/ WHO 2005
Batch number: 17118013

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: EA Engineering
Reported: 05/24/2017 21:09

Group Number: 1793845

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: Dioxin/Furans w/ WHO 2005
Batch number: 17118013

	13C12-2378-TCDD	13C12-12378-PeCDD	13C12-123478-HxCDD	13C12-123678-HxCDD	13C12-123789-HxCDD	13C12-1234678-HpCDD
8960235	57	68	65	63	64	61
Blank	65	74	79	78	79	83
OPR	53	62	72	72	73	71
Limits:	40-135	40-135	40-135	40-135	40-135	40-135

	13C12-OCDD	13C12-2378-TCDF	13C12-12378-PeCDF	13C12-23478-PeCDF	13C12-123478-HxCDF	13C12-123678-HxCDF
8960235	50	53	65	62	56	59
Blank	86	56	67	64	66	74
OPR	67	47	54	54	58	63
Limits:	40-135	40-135	40-135	40-135	40-135	40-135

	13C12-234678-HxCDF	13C12-123789-HxCDF	13C12-1234678-HpCDF	13C12-1234789-HpCDF	13C12-OCDF
8960235	59	53	62	48	40
Blank	69	63	82	68	69
OPR	62	62	73	59	55
Limits:	40-135	40-135	40-135	40-135	40-135

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ / MRL.
(2) The unspiked result was more than four times the spike added.
P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

30056 | 1793845 | 8960235 – 37

EA Engineering - Wilcox
DateShipped: 4/25/2017
CarrierName: FedEx
AirbillNo: 7789 8805 2290

CHAIN OF CUSTODY RECORD
Site #: 277
Contact Name: Patrick Appel
Contact Phone: 972-315-3922

No: 6-042517-151912-0156
Lab Contact: Angela Miller
Lab: Eurofins Lancaster Laboratories Environmental LLC
Lab Phone: 717-656-2300

Lab #	Sample #	Analyses	Preservative	Sampler	Collected	Sample Time	Numb Cont	Container	Lab QC
	WPA-WC-01	Ignitability Moisture PCBs pH	Ice to 4C	Jason Stroup	4/25/2017	16:30	1	8oz Jar	N
	WPA-WC-01	Dioxins Furans	Ice to 4C	Jason Stroup	4/25/2017	16:30	1	8oz Jar	N
	WPA-WC-01	Reactivity	Ice to 4C	Jason Stroup	4/25/2017	16:30	1	4oz Jar	N
	WPA-WC-01	GRO	Ice to 4C	Jason Stroup	4/25/2017	16:30	2	Encore	N
	WPA-WC-01	ORO	Ice to 4C	Jason Stroup	4/25/2017	16:30	1	8oz Jar	N
	WPA-WC-01	DRO	Ice to 4C	Jason Stroup	4/25/2017	16:30	1	8oz Jar	N
	WPA-WC-01	TCLP Metals TCLP SVOCs	Ice to 4C	Jason Stroup	4/25/2017	16:30	3	8oz Jar	N
	WPA-WC-01	TCLP VOCs	Ice to 4C	Jason Stroup	4/25/2017	16:30	3	Encore	N

Special Instructions:

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
		4-25-17 1800	Aaron Bingham EA	4-25-17 1800	
	Aaron Bingham EA	4-25-17 2000	FEDEX (courier)	4-25-17 2000	
			3 / ECLE	4-26-17/940	Ambient

eurofins | Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 181849

Group Number(s): 1793845

Client: EA

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Timestamp:	04/26/2017 9:40
Number of Packages:	3	Number of Projects:	1

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace ≥ 6mm:	N/A
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Timothy Cubberley (6520) at 11:49 on 04/26/2017

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT131	0.8	DT	Wet	Y	Bagged	N
2	DT131	0.8	DT	Wet	Y	Bagged	N
3	DT131	0.4	DT	Wet	Y	Bagged	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mg**	milligram(s)
C	degrees Celsius	**mL**	milliliter(s)
cfu	colony forming units	**MPN**	Most Probable Number
CP Units	cobalt-chloroplatinate units	**N.D.**	none detected
F	degrees Fahrenheit	**ng**	nanogram(s)
g	gram(s)	**NTU**	nephelometric turbidity units
IU	International Units	**pg/L**	picogram/liter
kg	kilogram(s)	**RL**	Reporting Limit
L	liter(s)	**TNTC**	Too Numerous To Count
lb.	pound(s)	**µg**	microgram(s)
m3	cubic meter(s)	**µL**	microliter(s)
meq	milliequivalents	**umhos/cm**	micromhos/cm

< less than

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Laboratory Data Qualifiers:

C - Result confirmed by reanalysis
E - Concentration exceeds the calibration range
J (or G, I, X) - estimated value ≥ the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.
U - Analyte was not detected at the value indicated
V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference…
W - The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.